

WHAT IS CLAIMED IS:

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1. A method for controlling organisms which comprises growing, decreasing, activating or inactivating cells, bacteria, viruses or fungi at an N-surface or a P-surface of a ceramic which is formed by treating the ceramic by polarization.
2. A method for controlling organisms according to Claim 1, wherein the ceramic is a material or a combination of materials selected from the group consisting of glasses and crystallized glasses which are materials selected from hydroxyapatite ceramics, barium titanate ceramics, strontium hydroxyapatite ceramics, hydroxyapatite ceramics containing calcium or strontium as solid solutions, lithium niobate ceramics, sodium niobate ceramics, potassium niobate ceramics and calcium phosphate; stabilized and partially stabilized zirconia ceramics; ion conductive alumina (so-called β -alumina) ceramics; and piezoelectric ceramics containing lead.
3. A method for controlling organisms according to ^{Claim 1} ~~any of Claims 1 and 2~~, wherein the ceramic is powder, fiber or a coating film.
4. A material for controlling organisms which is a ceramic treated by polarization so that cells, bacteria, viruses or fungi are grown, decreased, activated or inactivated at an N-surface or a P-surfaces of the ceramic which is formed by the treatment.
5. A material for controlling organisms according to Claim 4, wherein the
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ceramic is a material or a combination of materials selected from the group consisting of glasses and crystallized glasses which are materials selected from hydroxyapatite ceramics, barium titanate ceramics, strontium hydroxyapatite ceramics, hydroxyapatite ceramics containing calcium or strontium as solid solutions, lithium niobate ceramics, sodium niobate ceramics, potassium niobate ceramics and calcium phosphate; stabilized and partially stabilized zirconia ceramics; ion conductive alumina (so-called β -alumina) ceramics; and piezoelectric ceramics containing lead.

6. A material for controlling organisms according to ^{Claim 4} ~~any of Claims 4 and 5~~, wherein the ceramic is powder, fiber or a coating film.

7. A method for selective adsorption of proteins which comprises selectively adsorbing drugs, nutrients and proteins by utilizing difference in adsorption properties among an N-surface, an O-surface and a P-surface of a ceramic which are formed by treating the ceramic by polarization.

8. A material for selective adsorption of proteins which is a ceramic treated by polarization so that drugs, nutrients and proteins are selectively adsorbed due to difference in adsorption properties among an N-surface, an O-surface and a P-surface of a ceramic which are formed by treating the ceramic.

9. A material for selective adsorption of proteins according to Claim 8, wherein the ceramic is a material or a combination of materials selected from the group consisting of glasses and crystallized glasses which are

materials selected from hydroxyapatite ceramics, barium titanate ceramics, strontium hydroxyapatite ceramics, hydroxyapatite ceramics containing calcium or strontium as solid solutions, lithium niobate ceramics, sodium niobate ceramics, potassium niobate ceramics and calcium phosphate; stabilized and partially stabilized zirconia ceramics; ion conductive alumina (so-called β -alumina) ceramics; and piezoelectric ceramics containing lead.

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10. A material for controlling organisms according to ^{Claim 8} ~~any of Claims 8 and 9~~, wherein the ceramic is powder, fiber or a coating film.

11. A cement material for filling bones and dental applications which comprises powder or fiber of a ceramic treated by polarization.

12. A cement material according to Claim 11, which is needle-shaped powder or fiber.

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13. A cement material according to ^{Claim 11} ~~any of Claims 11 and 12~~, wherein the ceramic is a material or a combination of materials selected from the group consisting of glasses and crystallized glasses which are materials selected from hydroxyapatite ceramics, barium titanate ceramics, strontium hydroxyapatite ceramics, hydroxyapatite ceramics containing calcium or strontium as solid solutions, lithium niobate ceramics, sodium niobate ceramics, potassium niobate ceramics and calcium phosphate; stabilized and partially stabilized zirconia ceramics; ion conductive alumina (so-called β -alumina) ceramics; and piezoelectric ceramics containing lead.

14. A biomaterial which is obtained by treating a ceramic having affinity to biomaterials by polarization in an atmosphere of steam at a temperature from a room temperature to 1,000°C.

15. A biomaterial which is obtained by treating a ceramic having affinity to biomaterials by polarization at a voltage from 10 to 100,000 V/cm.

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claim 14
16. A biomaterial according to ~~any of Claims 14 and 15~~, wherein the ceramic is a material or a combination of materials selected from the group consisting of glasses and crystallized glasses which are materials selected from hydroxyapatite ceramics, barium titanate ceramics, strontium hydroxyapatite ceramics, hydroxyapatite ceramics containing calcium or strontium as solid solutions, lithium niobate ceramics, sodium niobate ceramics, potassium niobate ceramics and calcium phosphate; stabilized and partially stabilized zirconia ceramics; ion conductive alumina (so-called β -alumina) ceramics; and piezoelectric ceramics containing lead.

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